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September 15, 1999

RECEIVED
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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Magalie Roman Salas, Esq.
Office of the Secretary
Federal Communications Commission
445 Twelfth Street, SW - Room A325
Washington, DC 20556

Re: Docket No. 94-102

Dear Ms. Salas:

Herewith transmitted on behalf of United States Cellular Corporation, are an original and four copies of its Comments submitted in response to the "Wireless E-911 Report" filed by CTIA, PCIA, APCO, NENA and NASNA.

We ask that the Comments be accepted one day late. Necessary revisions could not be completed by yesterday. In the light of the fact that there are no reply comments, no one will be prejudiced by acceptance of the Comments and we accordingly request their acceptance and consideration.

In the event there are any questions concerning this matter, please communicate with this office.

Sincerely,

Peter M. Connolly

cc (w/encl.): Barbara Reideler (2 copies)
Federal Communications Commission

No. of Copies rec'd 0+4
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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Revision of the Commission's	)	WT Docket No. 94-102
Rules to Ensure Compatibility	)	DA 99-1627
With Enhanced 911 Emergency	)	
Calling Systems	)	

COMMENTS OF U.S. CELLULAR

U.S. Cellular ("USC") hereby files its Comments in response to the Wireless Bureau's August 16, 1999, public notice in this docket.[1]

USC owns and/or operates cellular systems in over 140 markets. It has a large stake in the Phase I and Phase II requirements for the provision of E-911 service. In these comments and the attachments thereto, USC hopes to provide information which will assist the FCC in assessing the state of wireless Phase I implementation.

USC believes that the FCC's August 9th request for a report signifies an information gap on wireless E911 issues at the FCC. It has become apparent that there is an erroneous perception that the wireless industry is not doing all it can to implement E911 and that the original FCC expectations are realistic. This misperception creates a dangerous situation for wireless; the institutional impulse will be to regulate any matter on the agenda, whether it warrants it or not.

The FCC needs to recognize that it must have information from the trenches on the operational aspects and individual carrier efforts on E911 implementation if it wants to avoid the

[1] Public Notice, "Wireless Telecommunications Bureau Requests Comment on Wireless E911 Report Filed by CTIA, PCIA, APCO, NENA and NASNA on August 9, 1999," CC Docket No. 94-102, DA99-1627, released August 16, 1999.

paralysis and confusion that often follows 'regulation by anecdote.' Therefore, attached as Exhibits to USC's comments are detailed documents prepared by a consortium of wireless carriers, of which USC was an active member. Please consider this information carefully. It is prepared by the individuals who drive carrier implementation of the FCC's E911 Order, they are not 'representatives' or delegates or emissaries. They deal with the legislatures, the LECs, the PSAPs, the vendors and the state regulators every day. As a group we have something very significant to say and we hope you will take the opportunity to learn how truly remarkable carrier achievements have been in a very short amount of time.

Exhibit A is a comprehensive summary of the state of wireless E911 implementation across the country. It identifies what is working and what needs to be tweaked. It concludes that given the current tools, wireless E911 implementation is progressing as expeditiously as possible.

Exhibit B is a matrix of wireless cost recovery legislation, the fees and the date of implementation, the state of carrier Phase I compliance and the number of PSAP requests meeting the pre-conditions set out in the FCC Order. Even a cursory review shows that while the majority of states are collecting millions of dollars from wireless subscribers there have been few PSAP requests for service. More importantly, this document together with Ex's. A and C show that while a state may have cost recovery legislation, it does not mean that carriers are receiving cost recovery for implementing E911. In fact, as shown by these documents, several states collect millions from wireless customers without any duty or inclination to dedicate those funds to the implementation of wireless E911.

Finally, Exhibit C is an extremely detailed analysis of every state's efforts at E911 implementation. It shows how complicated and 'local' in nature the effort to implement E911

has been. We hope, however, what is readily apparent to the FCC is the tremendous amount of work that has been done by the wireless carriers despite some formidable obstacles. There is a real danger of undermining the significant progress made by carriers if the FCC weakens, instead of strengthens, the current E911 requirements.

While the attached wireless consortium documents address the state of wireless E911 implementation, USC, as a predominantly rural carrier, will address what it believes can be done to remove obstacles to further spur implementation of enhanced services.

First, as a rural carrier we are extremely concerned that we are being forced by PSAPs and LECs into replicating a landline 911 system that does not serve our customers. PSAPs and states are comfortable with landline and have little time or inclination to learn wireless, therefore, they will opt for the same 911 paradigm already in place even though there are numerous areas of the country where there is no 911, much less E911. This means the preservation and funding of PSAPs in place without funds to create new PSAPs or new services. (See our discussion on West Virginia.) The rural work is left for state police or local law enforcement without funding for enhanced services.

In fact, the majority of USC's emergency calls are taken by state police and local law enforcement, not the PSAPs. The continuation of this system results in under-funded rural areas while rural customers fully subsidize an enhanced E911 system for their urban neighbors. The problem is exacerbated by the mobile nature of wireless. Roaming will continue to be a patchwork quilt of emergency numbers as customers travel across the country.

Second, rural E911 services have traditionally been higher in cost than urban services. PSAPs and state emergency systems balk at paying rural carriers. Indiana is an excellent example, although several states have caps on cost recovery. USC is in a position of watching

other carriers implement statewide E911 with full cost recovery, while USC's costs are denied. This creates urban haves and rural have-nots even though all customers are paying the same fee. Rural customers have little hope of a return on their investment anytime soon. USC believes that every carrier is entitled to full cost recovery under the FCC order.

Passing state E911 legislation is extremely difficult and time consuming. The wireless industry's effort in passing cost recovery laws is immeasurable. Over half the states now have some form of cost recovery in a few short years, even though most states are extremely hostile to new taxes. Most of these new taxes are per-subscriber fees. For the most part, wireless carriers recognize that the flaw in the per-subscriber fee model for state legislation is that it results in subsidization of small, rural or new entrant carriers by large, urban or incumbent carriers. Most large carriers and states have nonetheless embraced this model because it is infinitely easier to pass subscriber fees on wireless customers than to pass a general tax on the entire state population.

Third, cost recovery is not always dedicated to wireless E911; it is being used to shore up faulty landline systems, pay past PSAP debts, buy landline equipment, increase state budgets and pay ancillary public safety costs (uniforms, training, etc.,). This creates high fees on customers that will only get higher when the state finally wants to implement enhanced services. It makes little sense to have a nationwide E911 system that only the wealthy can afford. Unnecessarily high surcharges will disenfranchise entire classes of customers. These taxes are not insignificant to customers as evidenced by the hundreds of calls USC gets from customers when they see their first E911 fee on their bills.

Because rural implementation costs will be higher, it is paramount to USC that the surcharge on customers and the cost of rolling out E911 is as close to cost based as possible. In

fact, we have tried every way we know how to make sure that fees are cost based, which brings us to the subject of PSAP costs. Docket 94-102, the FCC's Order on Enhanced 911 Emergency Calling Systems, did not contemplate that cost recovery include PSAP costs. Paragraph 63 of the Order notes:

> *In establishing this deployment schedule,* [Phase 1 schedule] *we also conclude, however, that the requirements imposed upon covered carriers by our actions in establishing the schedule shall apply only if a carrier receives a request for E911 service from the administrator of a* ***PSAP that has made the investment which is necessary to allow it to receive and utilize the data elements associated with the service****, LEC infrastructure will support the service* ***and*** *a cost recovery mechanism is in place.* (Emphasis added.)

PSAPs, however, argue that they cannot upgrade without additional public funds and are, therefore, entitled to cost recovery like the wireless carriers. Carriers, rather than risk further delay, have in many instances added PSAP cost recovery in legislation. In trying to ensure that customer surcharges remain as low as possible, however, we have repeatedly asked PSAPs intending to draw from wireless customer funds, to share their costs. Despite repeated informal requests, and even some FOIA requests, we have yet to have any one PSAP give us their cost for wireless implementation so that we may determine customer surcharges on a cost based method for legislative purposes. No single issue turns the discussion of cost into a battle like the idea that the PSAPs need to be accountable for their expenditures. USC, like most carriers, is willing to invoice its expenditures and, in fact, several states require carriers to submit sworn invoices before they are paid. Few states require any accountability from PSAPs. That is taxation without representation. The customers have the right to know what's being done with their money.

USC has opposed the passage of a few E911 bills it determined not to be in the best interests of customers or discriminatory to rural customers. We do not apologize for acting as the guardian for our customers' money. Our customers deserve surcharges that are cost based

with full accountability for all expenditures specifically related to wireless E911 which must be non-discriminatorily applied and distributed. A bad E911 bill will significantly delay the implementation of enhanced services. Once money has been collected and spent, however inappropriately, it is almost impossible to change. USC believes that challenging bad bills and working through subsequent legislative sessions to get fair, cost-based bills will result in fair, low cost surcharges that speed E911 implementation to wireless customers. Working to get the best legislation possible is not to be confused with delay, even though that is often what carriers are accused of when fighting inappropriate legislation.

USC, along with many carriers, has always been a proponent of legislation where the collection of money is directly tied to wireless E911 implementation. We have recently also become proponents for legislation where the customers have a direct voice in how their money is spent. Without such vigilance you have situations like in West Virginia, described below and in the attached exhibits, where money is collected and poured into a landline system that does a poor job of covering the state, without hope of wireless enhanced services. Another example is Texas where a much criticized statewide 911 system is sitting on tens of millions of dollars while internal squabbling holds up enhanced safety for thousands of customers who have been paying the fee since 1997. The Texas Office of the State Auditor found that failure to establish planning and control processes prior to spending funds resulted in regional costs varying from 75 cents to $20.34 per citizen. (*See* page 11, *An Audit Report of the Statewide 911 System* by the Texas Office of the State Auditor, attached as Exhibit D; *See also*, *Staff Report of the Texas Sunset Advisory Commission on State Emergency Communications*, attached as Exhibit E.)

We encourage you to review Ex's D and E, as they are comprehensive examples of why accountability for funds and standards for PSAPs are so important. The Texas Audit found that

of an estimated $94 million in annual 911 revenue, $29.2 million (31 %!) could be saved annually, while local governments could save $34.2 annually if the state PSAP structure were more efficient, overlapping service responsibilities were eliminated and revenue collection were cost efficient. Consolidation of the state's PSAPs would annually save $14.2 million in duplicative expenditures and over $4.9 million in duplicative administrative costs for overlapping responsibilities.

Findings like these prompted USC, and other wireless carriers, to add independent audit requirements into state legislation. We believe that at a minimum, state collection and disbursement of E911 customer funds should be independently audited every two years in order to keep E911 service affordable to as many people as possible. Ubiquitous service depends on affordability.

The Texas Auditor also found that the large number of Answering Points in Texas resulted in 54% of the Answering Points reporting less than 10 emergency calls per day in 1997! Only 3% reported more than 100 calls per day. This prompted USC to conduct an analysis of the approximate number of PSAPs per population in USC's service territory, which we have attached as Exhibit F. As our chart shows, there is a widely divergent arena of efficiencies. Obviously, we have an interest if we are to keep customer surcharges as low as possible, in why some states have 1 PSAP for 20,000 people while another has 1 PSAP for several hundred thousand people.

Public involvement on these expenditures will be a pure form of truth-in-billing. We think the public will be much less patient waiting for enhanced services while millions of their dollars sit idle in funds or are used for non-wireless expenditures. USC, along with virtually all wireless carriers, can give per subscriber costs for rolling out E911 and we believe that anyone

using customer funds should be held to the same accountability.

Finally, USC's customers have, to date, paid approximately 11 million into various state E911 funds. Yet, we have fewer than a dozen PSAP requests that meet the FCC's prerequisites to E911 implementation. It isn't hard to estimate that if USC customers have paid many millions, then the collective amount from all wireless customers across the country is hundreds and hundreds of millions. A review of Ex. B, however, shows very few PSAP requests nationwide. Our customers have the right, we believe, to know what's being done with an incredible amount of money. We bring this to the FCC's attention to prove our point on the need for accountability of the funds, dedication of funds to wireless E911 implementation and non-discriminatory disbursement.

Fourth, the cost and timing of E911 has increased exponentially because of the LECs. In order to accommodate state and PSAP requests for costs, we need to go to the LECs for the cost of interconnection. We routinely wait months for the LECs to give us any E911 cost information. We recently received E911 service establishment fees for non-recurring fees of $3,000 to $15,000 and monthly recurring fees in the range of $600 to $2,500 per month. Our all time winner to date is Ameritech at $27,000.00 per selective router! These extraordinarily high fees are a part of our cost recovery and make rural implementation more expensive than it needs to be. These costs are driven by the LECs' unreasonable demand that USC purchase a full T-1 line even for those rural areas where there is simply not enough traffic to justify the demand. There is certainly no technical reason as we are already connected to the LEC via trunks used to send mobile to land calls.

In addition, the state of LEC readiness will be appallingly slow if we have to wait for the installation of all these lines. As you know, rural areas will be last to be served by the LECs

because they will, of course, build where the volume of traffic will give them the greatest value. Moreover, XYPOINT and AT&T, in various *ex parte* meetings with the FCC, requested support on these and other LEC issues that are hampering E911 implementation. Ignoring those requests for help has delayed implementation significantly throughout USC territory.

Fifth, USC has been inundated by PSAPs asking for costs not related to its choice of technology for E911. USC, like other wireless carriers, spent months and thousands of dollars determining what technology is best for its systems and its customers. PSAPs, however, spend months insisting we use some landline technology with which they are familiar or that wants to sell them equipment. USC simply cannot, under any circumstances, implement E911 if it does not retain the choice of technology. We do not have the resources to implement various solutions across 24 states.

Finally, in addition to Ex. C, which is the consortium collection of state profiles, USC includes examples of some particular state problems to illustrate several issues, including how time consuming and how different each state's issues have and will be, how important accountability and dedication of funds is to the speed of E911 implementation and how carriers have gone above and beyond the Order's mandates.

USC's response to King, County (Washington) Comments

The state of Washington has been collecting a 911 fee from wireless customers since 1994 pursuant to RCW 82.14B.030(2). The fee is $.25 per radio access line. The statute provides that the funds will be deposited into an enhanced 911 state account which shall be used only to implement and operate enhanced 911 statewide and to conduct a study of the tax base and rate for the 911 excise tax. The state enhanced 911 coordinator has authority to decide the

precise manner in which the funds will be expended from the account. (RCW 38.52.540).

The state, therefore, has the requisite statutory authority at this point to begin issuing formal requests for wireless E911 and begin wireless E911 deployments. This has not occurred. Instead, the state has continued to demand that carriers provide "free ANI" which they claim is required under its 911 statute. This conclusion is without merit for several reasons:

First and foremost, the FCC's Report & Order, 94-102 requires that states have a cost recovery mechanism in place as a precondition to a wireless carriers obligation to provide ANI. It is widely known that when federal law occupies the same field of subject matter as that addressed by state law, federal preemption occurs. The 1996 Order from Docket 94-102 addresses this in paragraph 104, by recognizing that the FCC may preempt state regulation to protect a legitimate federal objective and when the matter involves intermingling interstate and intrastate issues. To that end, the FCC recognized that federal preemption may be necessary to achieve a ubiquitous E911 operational system and compatibility, to avoid confusion by roamers and to prevent state-by state technical requirements that could unduly challenge carriers and equipment manufacturers. The Order states: "*...we conclude that state actions that are incompatible with the policies and rules adopted in their Order are subject to preemption.*" We ask the FCC to address this issue to prevent any further delay (note that King County has identified this issue as a primary cause of Phase I delay in Washington state) and issue an order preempting the state's assertion that carriers must provide free ANI.

Secondly, the statute at issue does not state that ANI will be provided by the carriers "free of charge." USC's legal staff and two outside law firms have combed the entire statute. There is no word "free". The statute states:

"Any person as defined in RCW 82.04.030 owning, operating, or managing any facilities used to provide wireless two-way telecommunications services for hire, sale, or resale which allow access to 911 emergency services shall provide a system of automatic number identification which allows the 911 operator to automatically identify the number of the caller."

Third, the state has previously argued that some carriers in the past agreed to provide ANI for free in exchange for a reduced 911 fee. The state is now insisting that all carriers be held to this 'deal.' USC, along with many other carriers in the state, was never involved in such an 'agreement,' which, more importantly, has not been codified into the law or legislative history.

Moreover, the state has not shown that it needs additional funds. USC served a Freedom of Information Act Request ("FOIA") upon King County to examine if the funds were being used appropriately for E911 as required by statute. The information submitted is as follows:

For the years 1995-1998, King County alone collected $3.6 million from wireless subscribers. During this time and up to the present, Phase E911 is not deployed anywhere in the County. In King County's comments to the FCC in this proceeding filed August 3, 1999, King County states that two carriers are providing free ANI. Despite this, the County has not issued a valid Phase I E911 request to those carriers even though King County claims that the failure to provide free ANI is holding up Phase I.

Information presented at an E911 Wireless Study Committee is equally disconcerting. The data compares wireless E911 revenue received by county, with the amount of wireless calls taken by those counties. The amount of revenue per call raises concerns over the use of the funds. For example, we found the following based on 1997 data (Committee information in its original form is attached hereto as Exhibit G):

County	Wireless Revenue Received	Wireless Calls handled	Revenue/call
Adams	$7219	0	$7219 per call
Asotin	$3600	240	$15.00 per call
Chelan	$40,000	8427	$4.74 per call
Clark	$133,852	47,359	$2.82 per call
Columbia	$1245	503	$2.47 per call
Cowlitz	$52,018.08	13,838	$3.75 per call
Ferry	$1119.50	60	$18.65 per call
Frankin	$15,008	4,224	$3.55 per call
Grant	$24,360.75	247	$98.62 per call
King	$1,228,631.93	280,168	$4.38 per call
Lincoln	$800	204	$3.92 per call
Pierce	$298,641.60	103,180	$2.89 per call
Skagit	$52,000	0	$52,000 per call
Snohomish	$240,672.47	66,033	$3.64 per call
Spokane	$195,544.90	3490	$56.03 per call
Whatcom	$67,232	10,000	$6.72 per call
Yakima	$95,071	17,771	$5.34 per call

We question the state's need for additional funding at this time when it does not appear that the state is using the current wireless funds in an efficient, fair and cost effective manner.

Another issue addressed in the Washington's August 3, 1999 filing with the FCC is the claim that delay of Phase I implementation has been due to "lack of wireless carrier cost data." Washington states that carriers have been unwilling or unable to share their "actual" costs and instead have provided only "per subscriber rates." The fact of the matter is that most wireless carriers, like USC, have contracted with third-party E911 vendors to handle the implementation of Phase I E911 nationwide. Since the per subscriber amount (or a per PSAP price) is the precise amount that the carriers will be charged by the vendors, that is their *true* cost. Washington's insistence that carriers break down the cost components is as nonsensical as breaking down the components of a purchased car. How can one attribute any particular cost to the tires? Although the price encompasses several components, the most important information has been conveyed to

the state - the total cost for the provision of E911 service. Since a per subscriber formula is what has been used uniformly by almost all of the states that have enacted legislation thus far, it is difficult to understand why this presents a problem for the state. Certainly, it makes it easier for the state to establish a per subscriber fee.

King County itself has not been forthcoming on the issue of providing cost information. A copy of King County's response to USC's FOIA request is attached hereto as Exhibit H. King County's response states:

> *"with regard to records of specific wireless related costs to the PSAPs in King County, we have not kept records of this information."*

The only information provided in response to the FOIA request was: 1) wireless revenue collected; 2) wireless revenue distributed by county; and 3) the projected number of wireless calls and percentage of calls that each county handled. USC is extremely troubled that King County has been collecting wireless revenue since 1994, over $3.6 million, and has not in any way tracked wireless related costs. Where did the $3.6 million collected by the county go? We believe this response is especially troubling in light of the pursuit of additional funding in the recent legislative session. Once the PSAPs begin taking wireless customers' money, it is incumbent upon them to conduct their operations with an eye towards accountability to the customer including tracking wireless costs. It is USC's position that any new funding should closely reviewed until the state can demonstrate the need for additional funds based on actual cost data rather than speculation of undetermined cost.

West Virginia - USC's example of why wireless surcharges should be subject to full accountability and dedicated to wireless E911 implementation.

Since January 1, 1998 West Virginia required wireless carriers to collect a monthly 911 fee from in-state wireless customers pursuant to its 911 statute, S.B. 278, enacted in 1997. The fee was originally set at $.75 by statute but was increased by the West Virginia Public Service Commission ("Commission") to $.94 effective June 30, 1999. Wireless customers in West Virginia pay twice the national average. To date, USC has paid approximately $1 million into the fund and has not received one request to deploy E911 services in the state. In fact, the funds are not used for wireless E911 implementation purposes. Instead, section 24-6-6(b)(d)(1) allows the funds to be used as follows:

- 1% to counties that do not have a 911 ordinance in effect as of the effective date of the statute or that have not enacted a 911 ordinance within 5 years prior to the effective date of this section.

The remainder of the funds are distributed to counties on a pro rata basis based on that county's percentage of the total number of exchange access lines and line equivalents in service in the state. Section 2 explains the use :

> "(2) Counties which have an enhanced 911 ordinance in effect shall receive their share of the wireless enhanced 911 fee for use in the same manner as the enhanced 911 fee revenues received by those counties pursuant to their enhanced 911 ordinance."

Since the original 911 ordinances do not require the funds to be used for wireless E911, there is no requirement that the new funds be used for that purpose.

The Commission opened an investigation into the wireless cost recovery issues in 1998 in Case No. 98-0637-T-GI. In that case, the Commission permitted the wireless carriers to develop a Task Force for the purpose of generating an industry consensus report to provide the Commission with specific factual data regarding wireless E911 and to respond to various

questions relating to the need for cost recovery for wireless and landline carriers such as Bell Atlantic, which filed a Petition with the Commission seeking to determine if it will be entitled to refunds for its tandem switching costs associated with providing wireless E911. Such costs are estimated at $30,000 per center and $200,000 per tandem. Some of the information sought by the Commission from this Task Force includes estimates on the wireless carriers' costs, the industry's position on whether LEC cost recovery should be available from a wireless fund and a summary of the status of emergency systems in the state.

Another component of the Commission's General Investigation has been to examine whether to adopt a statewide technical 911 solution such as CAS or NCAS. The state believes it has the authority to mandate which type of technical solution wireless carriers may utilize. We believe this cumbersome and unnecessary process is another part of the delay in West Virginia.

Despite having collected substantial 911 fees from the wireless industry since January 1998, and although the Commission is still investigating cost recovery, the Commission staff informally suggested establishing a second fee on wireless customers in addition to the existing $.94 fee or, in the alternative, mandating that carriers self recover E911 costs by increasing their wireless rates. In other words, wireless customers will pay nearly twice the national average in an E911 fee to subsidize West Virginia's landline system and pay increased rates to get wireless E911.

Most importantly, the state has failed to deploy wireless E911 in even one market.

Indiana - USC's example of why caps will impede rural E911 implementation.

Since May 1, 1998, USC's customers pay a $.65 fee to the state of Indiana but USC is one of a few small, rural carriers in the state that has not received approval to implement E911. The state has a procedure whereby each wireless carrier is required to conduct a presentation of

their 911 costs to the Indiana Wireless E911 Advisory Board ("Board") and receive Board approval for their 911 costs in order to be eligible for cost recovery. USC made two such presentations to the Board in January 1999 and June 1999 respectively. After USC made its first presentation, the Board informed USC by letter (attached hereto as Exhibit I) that it would be eligible to receive only $.25 in cost recovery per customer despite the fact that USC's costs are higher because it serves predominantly rural areas. USC sought clarification of this decision by correspondence dated February 18, 1999, attached hereto as Exhibit J. By letter to the Board, we stated that we respectfully disagreed with the amount that the Board authorized for the purpose of cost recovery to USC:

> *"Following the meeting with the Wireless Advisory Board, USCC received a letter authorizing reimbursement of $.25 per subscriber per month. Total distribution from the fund would be $3800. Based upon our footprint, we have determined that full deployment to all 11/16 PSAPs will cost USCC approximately $2600 per PSAP per month. The Board's authorization will only allow USCC to recover costs for deployment to 1.5 PSAPs while providing no clear direction as to how to make the service available to all subscribers throughout Indiana.*
>
> *According to Section 37 of the statute, CMRS providers should recover all of their costs for implementing enhanced wireless 911 service from the fund. In addition, section 38.2 of the statute clearly states that the 125% cap applies to the total amount contributed by the CMRS provider - it does not relate in any way to the $.25 per subscriber described in section 39.2. Section 38.2 also states that the 125% rule does not apply if the Board approves the cost before it is incurred. We would like written assurance that USCC's approval of costs constituted "prior approval" under Section 38.2 and that USCC will be provided full E911 cost recovery, which will not be limited to the $.25 per subscriber per month."*

The problem USC encountered with the Indiana Board and the Board's misinterpretation of the state "cap"[2] is illustrative of the problem with caps in general. We do not believe that the Board's conduct is correct nor that it conforms with the state's 911 statute requiring carriers to be paid for actual expenses based upon a sworn service plan, not upon rough estimates. Such

[2] Several states have a 125% cap on the amount that any one carrier can be reimbursed from a 911 fund of the amount that the carrier paid into the fund.

state policies cause an inordinate amount of waste of resources and is patently unfair to those customers who do not receive E911 but are forced to pay.

Therefore, while USC customers continue to pay into the E911 fund every month, they derive no benefit and in fact, some of the funds originating from their payments are being used to provide payments to other carriers in amounts greater than their costs. As noted infra, the FCC needs to be aware that rural customers are being discriminatorily required to pay without getting E911 services.

Another impediment to the implementation of E911 in the state of Indiana has been the unreasonable cost of LECs, including Ameritech, for E911 service establishment. These costs have been truly exorbitant and far higher than any previously required to send 911 over LEC networks. Quotes from Ameritech in August 1999 include:

- $13,467 per Selective Router[3]

$422 non-recurring, $301 monthly recurring per DS1;
$100 non-recurring, $56 monthly recurring per 100 pANIs; and
$107 non-recurring, $1.45 monthly recurring, pANI NXX charge per selective router.

-

Unless LEC costs are brought under control, E911 implementation will be continually delayed, if not stalled permanently as some PSAPs elect not to request Phase I service based upon excessive costs. Those living in rural areas will be hit the hardest, as they have few customers over whom to spread the cost.

USC Recommendations:

1) Cost recovery

USC believes that nothing will stop E911 implementation faster than weakening the FCC's Order's minimal requirements. Requiring self recovery, for instance, as recommended by APCO

[3] The non-recurring fee per selective router quoted by Ameritech varies greatly by state. A copy of the quote from Ameritech is attached hereto as Exhibit K. As noted earlier in these comments, it is unlikely that these cost differentials are cost based. Some respective Ameritech quotes from other states follow: $18,913 - Indiana; $17, 761-Michigan; $16,633 - Ohio; $27,088 - Wisconsin.

will cause the death of rural wireless E911. There is simply no way that small, rural or new entrants can implement wireless E911 at an affordable rate when compared to the cost efficiencies attendant to large, urban or incumbent carriers. Under this ill-advised suggestion, wireless E911 will suffer a fate much worse than that of landline E911. The application of self recovery is on its face discriminatory to carriers like USC who do not have large numbers of customers over whom to spread costs, yet need to compete with large carriers. Enhanced emergency services, under such a scenario, will become a carrier competitive issue and the existence of E911 will be dependent upon the choice of carrier. Compare this to the FCC's goal of ubiquitous nationwide service.

Because E911 implementation is moving as fast as possible, the FCC needs to take care that it doesn't derail what is, all things considered, a fast moving train. Carriers have more than done their part, but they cannot force PSAPs to implement and a cursory review of this situation may tempt the FCC to change the dynamics of cost recover. But considering that USC customers alone have to date contributed almost 11 million to various state funds, how do you now tell wireless customers across the country that their investment will yield no return and in addition, their rates will now increase to cover the same services for which they've already paid hundreds of millions of dollars? USC assumes that APCO's proposal does not seek the concomitant abolition of the 25 plus state wireless E911 bills across the country. If not, customers will be paying many millions into state funds and paying increased rates for the same services.

In sum, the FCC should keep the current structure in place, as is, unless it wants to strengthen the infrastructure. If it wants to strengthen that infrastructure, the FCC can require that cost recovery funding mechanisms adopted by legislatures pursuant to its Order must be

used to implement enhanced wireless services and must be non-discriminatorily disbursed. The FCC can require that state legislatures independently audit wireless customer funding. The FCC can require reports by the wireless carriers and the parties to the Consensus Agreement on the specifics of PSAP requests, funding collection and disbursement, PSAP administration, E911 legislation, carrier costs, etc. The FCC can create a Task Force of carriers to update its attached consortium report to the FCC. USC would be happy to participate in such an effort.

2) Technology Choice

USC also believes that if carriers do not retain technology choice, E911 implementation for rural areas will be significantly hampered and that many rural carriers will by necessity seek waiver exemptions under the Order. This is especially true if LECs are successful in pushing dedicated lines and delaying implementation until their own E911 solutions are marketable. Rural areas will be last on the list for LEC infrastructure as billions in LEC equipment and infrastructure is made ready for the urban areas. More importantly, based on the number of requests USC has from PSAPs requesting costs for a number of alternative services, it would be impossible for USC, and we suspect many other rural and mid-size carriers, to resource such a venture. USC cannot dedicate the manpower and resources necessary to make sure its system is compatible with all solutions. Not only would it be prohibitively expensive, but it would delay implementation for several years beyond what is necessary.

USC chose a technology for its system and customers which it believes to be the least cost to PSAPs, the best value for rural customers and the most compatible with its nationwide system. We believe that carriers know their systems best and are in the best position to choose the technology. We also believe that PSAPs know and trust landline systems and, therefore, are less able to quantify the cost efficiencies and reliability of wireless networks and what is best for a wireless customer base.

The FCC can strengthen the Order on technology choice to make it even more clear that carriers dictate the technology. We believe that such a directive would do much to remedy some of the roadblocks that USC has encountered. Again, if the FCC is not going to strengthen these minimal requirements, we cannot stress how disastrous it would be to nationwide implementation to weaken them in any way.

3) Liability

The FCC can also, finally, keep the issue of carrier liability from delaying much needed legislation and from increasing costs to subscribers. The issue of liability has been used in numerous states as a bargaining chip in cost recovery funding. Illinois is an excellent example. If the FCC is hesitant to involve itself in state liability issues, it should at a minimum, relieve carriers of the duty to implement in the absence of liability protection. It is the one obstacle the FCC can remove, with the knowledge that all parties support the concept (trial lawyers excluded). USC believes that if the FCC relieves carriers of the duty to comply with the Order in the absence of liability protection, there will be an immediate effect in terms of speed of implementation and in reduction of costs to customers. It's just that simple.

4) The LEC Bottleneck

LECs threaten the successful implementation of E911 and the FCC should consider taking swift steps to prevent excessive pricing by LECs for the establishment of E911 service to wireless carriers. The Telecommunications Act's Section 251 interconnection provisions prevents LECs from charging anything other than rates which are *"just, reasonable, and nondiscriminatory."* We are aware of at least one wireless carrier having successfully arbitrated against a LEC for excessive E911 rates. While we are encouraged by this decision, we are discouraged at the prospect of having to arbitrate in all states in order to obtain fair and reasonable rates. We urge the FCC to consider its preemption powers to address the rates charged by LECs for wireless

E911 service establishment. Addressing this problem would remove a current obstacle to the successful and cost effective implementation of wireless E911. Our fear is that without a speedy resolution to the LEC problem, a nationwide E911 network will never become a reality, because rural areas will be left out in the cold as the steep LEC pricing prevents particularly rural America from deploying E911 service.

5) Privatization

USC believes that there are issues unique to it as a rural carrier that would be worth exploring. USC would like to explore the concept of private PSAPs to serve its rural customers. We have been watching the situation in Illinois where some PSAPs have refused to take wireless calls and where a third party vendor is acting as an Answering Point. It appears to be an efficient operation that might be a faster way of bringing Answering Points and, therefore, E911 to rural areas. The FCC has always fostered choice and this may be another example of exploring an alternative to speed ubiquitous service nationwide. USC would, therefore, like to explore whether such an idea would be consistent with the Order's language of "appropriate PSAP."

Summary

USC has worked with virtually every wireless carrier in the country on the issue of E911 and we can say without reservation that the industry could not work harder, faster or more fairly toward the expeditious implementation of E911. What we have achieved in such a short time frame is truly remarkable and we are extremely proud to have been a part of the process.

Respectfully submitted,

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U.S. CELLULAR'S RESPONSE TO FCC REQUEST FOR A REPORT ON CC DOCKET NO. 94-102

EXHIBITS

A. Executive Summary of Wireless Carriers
B. Wireless E9-1-1 Survey Matrix
C. State Profiles of Wireless Carriers
D. An Audit Report on the Statewide 911 System for the State of Texas by the Office of the State Auditor
E. Sunset Advisory Commission on State Emergency Communications for the State of Texas Staff Report
F. Population Per PSAP by U.S. Cellular State
G. Washington State Wireless Tax Data
H. King County, Washington, FOIA Response
I. Indiana Wireless E911 Advisory Board Letter to U.S. Cellular
J. U.S. Cellular Letter to Indiana Wireless E911 Advisory Board
K. Ameritech Quotes to Establish E911 Service

EXHIBIT A

WIRELESS CARRIER RESPONSE TO FCC AUGUST 9 REQUEST

EXECUTIVE SUMMARY

I. CMRS PROVIDERS ARE MEETING OR EXCEEDING THE E911 PHASE I REQUIREMENTS.

Wireless 911 progress, especially when compared with the landline 911 implementation experience, has been expeditious. According to NENA, the first successful 911 call was made in 1968. It took 8 more years for 911 service to reach 17% of the population, 11 years to reach 26% and another 30 years to reach 93% of the population. Interestingly, only 9 states enacted landline 911 legislation by 1979, 6 years after the first national policy encouraging nationwide 911 deployment, and 11 years after the first successful 911 call.

NENA points out that even today, 31 years after the first successful 911 call, landline 911 is only available in 50% of the geographical area of the country.

Wireless E911 legislation, on the other hand, is being rapidly pursued. In less than three years half the states have enacted some form of wireless E911 legislation. As set out in more detail in the attached state profiles, carriers were extremely active in ensuring that appropriate legislation was put in place. Not only did carriers ensure they were Phase 1 compliant as required by the FCC's Order, they also took additional steps, that were clearly not mandated by the FCC, to ensure deployment and actively advocated pertinent and reasonable legislation. Wireless carriers have clearly exceeded the requirements set out in the FCC Order.

A. Status of Phase I Deployment

The question to be asked is can a carrier roll out Phase I within the time limit prescribed by the FCC's Order, "*if a carrier receives a request for E911 service from the administrator of a PSAP that has made the investment which is necessary to allow it to receive and utilize the data elements associated with the service, LEC infrastructure will support the service, and a cost recovery mechanism is in place.*"[1] The answer is yes. A review of the attached matrix shows that carriers are ready to deploy Phase I as soon as they receive a request meeting the FCC's mandated requirements.

B. Additional Carrier Steps Toward Deployment

1. Legislative Advocacy. As noted, state legislation supporting the FCC wireless 911 mandate has been enacted much more rapidly than similar

[1] Paragraph 63, FCC Report and Order and Further Notice of Proposed Rulemaking, CC Docket No. 94-102, setting out when carriers' obligation to deploy Phase I arises. Note that carriers' obligation does not arise until all of the elements set out in the quoted abstract above have been met. See also, paragraph 6.

legislation supporting landline 911. More importantly, this has been achieved, in many cases, through the cooperative efforts of public safety officials and carriers, who joined forces to implement wireless 911. Carrier support has included development of draft legislation, funding for lobbying efforts and providing testimony during the legislative process. Carriers continue to provide support for legislative efforts to overcome the obstacles to full Phase 1 deployment, despite the fact that the FCC has not required the carriers to expend the significant investment of time, resources and money to move and promote appropriate legislation.

2. **Standards-setting work**. Carriers worked closely with public safety to identify necessary standards changes and ensure their passage. Achieving these changes for all wireless technologies required the commitment of considerable resources in the various standards setting bodies. Carrier involvement in WEIAD, the NENA Technical Development Conference and similar bodies and trials has kept the development processes moving.

3. **State Boards & Carrier Outreach.** Numerous Task Forces and 911 Boards were organized to address local implementation of the FCC Order. Wireless carriers are very active participants in these efforts, establishing a set of common concerns and issues necessary for the success of these boards and the ultimate implementation of legislation. Cooperative efforts to work through issues and develop creative approaches to various legislative, technical and operational hurdles are the groundwork necessary for ubiquitous wireless E911 service.

In many cases, these partnerships helped public safety complete the difficult precursors to wireless E911 deployment. This much-needed collaboration yields a better understanding of each participant's needs and concerns, as well as their responsibilities for providing wireless E911 service. In instances where despite the best efforts of all parties, such collaboration failed to materialize, wireless E911 implementation has been slow or non-existent.

4. **Carrier Switch and Network Upgrades.** When the initial order was issued, wireless networks were not generally capable of supporting Phase 1. Collective standards had to be developed and significant switch software written and tested. The standards adopted have been structured to support both a 20 digit, call-path associated signaling data stream, as well as a non-call-path associated method. In both cases, the standards reflect the broad goal of providing standards-based solutions which would have minimal impact on the PSAP community and utilize existing interfaces. Thus , a PSAP can transparently accept Phase 1 calls from multiple CMRS providers, even if the providers are using disparate solutions.

II. DELAYS IN PHASE I DEPLOYMENT STEMS FROM MULTIPLE, NON-CARRIER RELATED FACTORS.

A. Cost recovery

1. Timetable Issues. Neither landline E911 nor wireless E911 have been deployed nationally. Some carriers are concerned that PSAPs and states will replicate the landline 911 experience because they are familiar with and comfortable with landline. This is troubling because as NENA points out, only 50% of the geography of the U.S. is covered by landline 911. A new paradigm needs to be created if the necessary ubiquitous roll out of wireless E911 is to be achieved.

Specifically, statewide collection and recovery is in many cases very hard to achieve because PSAPs and local governments are very hesitant to give up local control over collection and distribution of funds. The consensus building necessary for effective legislation, therefore, is often time consuming and initially contentious, until all parties are educated as to the true purpose of the FCC's Order.

Not only does passing legislation take an extremely long time, it is even more difficult and time consuming when legislation is perceived as a tax and where huge sums of moneys are collected. In addition, some legislatures only meet every two years; some legislation needs to be passed by public referendum. Most states have lengthy legislative procedures that need to be met before legislation can be passed. Moreover, carriers have attempted to make sure that the money collected from their customers through legislation is used for the purpose intended.

It is extremely unrealistic for the FCC to expect that all states will have legislation in place, funding mechanisms will be established, boards will have met and finalized rules, the LECs will be ready and willing, PSAPs will be funded and upgraded and Phase I will be fully implemented under its current timetable. These issues, among others, were raised early on in the industry's unanswered Petitions for Reconsideration.

The carriers, therefore, have resorted to exploring creative solutions for wireless E911. Even a cursory review of the state profiles will reveal the various ways in which carriers have stepped up to the plate and consistently worked towards the deployment of Phase I.

Finally, it needs to be mentioned that the perceived success or failure of Phase I is not dependent on how many PSAPs request Phase I (in fact we have been unable to find a source that can tell us how many PSAPs there are across the country. NENA, APCO and various vendors all have different numbers and all acknowledge that they do not know the exact number). The success of E911 should be determined by the number of citizens, regardless of geography, that have access to E911. There shouldn't be, as under the landline model, a stark difference in availability of E911 between urban and rural, especially since the customer pays the same amount regardless of where they live in the state.

2. Linkage between collection and disbursements: the existence of state 911 legislation or E911 fee says nothing about the availability of cost recovery. Although wireless carriers have been successful in implementing E911 legislation, they have not always been successful in linking the collection of funds assessed on their customers with the distribution of those funds to implement wireless E911 for those customers. West Virginia is an excellent example. Although WVA has been collecting $.75 since 1-1-98 (it recently raised that fee to $.94), not one cent has or will go to the deployment of Phase I. Instead, the vast majority of funds is distributed to counties on a pro-rata share based on the number of access lines in the county. The county can use the money as it sees fit, mainly for landline and general PSAP funding. Therefore, despite paying one of the highest E911 surcharges in the country, wireless subscribers in West Virginia have little hope of seeing E911 in the future. Instead of using the millions collected to roll out statewide wireless E911, the state has designed wireless fees to be distributed to continue to fund an extremely flawed landline system that doesn't even provide E911 to a majority of its citizens. A few more examples from the state profiles of states that are collecting but not dedicating funds are CA, NY, RI, and WA. The City of Chicago collects $1.25 per wireless customer but does not dedicate the funds to E911.

Several states have been collecting millions of dollars from subscribers without any plan to roll out Phase I. TX is an excellent example. The huge amount of that fund could have and should have been used to benefit the citizens paying into it.

Some states have simply delayed putting together rules required by the new legislation which makes the funding unavailable to wireless carriers. For example, Iowa delayed the rules process by trying to implement rules in contravention of the legislation. The lack of rules is the only barrier to implementing E911 in that state.

These illustrations show that even though a state may have adopted certain cost recovery procedures from wireless subscribers, it still may not have established a cost recovery mechanism as required by the FCC's Order. Perhaps this was the reason the FCC found that, "*finally, it has come to our attention that Phase I services are not being provided in some cases even where the two conditions for service under our E911 rules appear to be met. (footnote omitted) In these cases, States have adopted an E911 cost recovery mechanism and the carrier has received an appropriate request from a PSAP with the technological capabilities of receiving the transmissions.*"[2]

[2] Public Notice, Commission Seeks to Facilitate Wireless E911 Implementation and Requests a Report, page 6.

In support of the allegation of carrier delay, the FCC cites an *ex parte* filing by SCC Communications and an article in *Wireless Week*, neither of which validate the claim of delay. As a review of the attached matrix shows, in those states where appropriate cost recovery is in place and where the FCC's preconditions to the carriers' obligation to provide Phase I are present, the carriers are in compliance with the Order.

B. Choice of Technology Issues

1. Standards. Collective standards setting efforts and the product development efforts of hardware firms have resolved many of the technology issues. After the initial FCC Order, some participants in the standards setting process assumed that a 20 digit, call-path associated signaling data stream would be needed from the mobile switch through the LEC network to the PSAP. Standards have been finalized to support this architecture and CMRS providers and PSAPs have the option of using it. However, third party vendors and the LECs quickly began to offer other innovative and relatively inexpensive solutions. Most of these delivered both ANI and pANI without requiring a complete 20 digit in-band signaling stream. The broad goal of these efforts was to provide a solution which had minimal impact on the PSAP. These solutions, broadly referred to as hybrid solutions, had the following benefits:

- The trunks between the selective routing tandem and the PSAP did not need to be replaced; CAMA trunks work.
- No changes are usually necessary to PSAP CPE. Display equipment functions nearly the same as with landline.
- Products are available for deployment immediately.
- Some of the solutions could be deployed with no LEC involvement at all.
- Particularly for deployment to a small number of PSAPs, the cost might be less than for a LEC (network) solution.
- By utilizing existing interfaces, a PSAP can transparently accept Phase 1 calls from multiple CMRS providers, even if the providers are using disparate solutions.

2. Technology issues on the state level. While technology issues have arguably been resolved through collective standards-setting efforts, technology implementation specific issues have emerged in some states.

a. Minnesota Phase 1 implementation has been delayed because of disagreements over choice of technology and disagreements over technology specifications. The state profile for Minnesota sets out in detail problems associated with a carrier's inability to deploy the technology of their choice.

b. The State of Texas made the decision to deploy its own database for all 911 calls. This presents difficulties for carriers that adopted a nationwide plan for deployment of E911 technology.

c. Rhode Island authorities invested considerable time over the past year in creating a state-specific wireless E911 solution for their jurisdiction. Although system development is not yet complete, preliminary indications are that Rhode Island will require carriers to interconnect with the state's E911 system through a callpath associated signaling (CAS) architecture. Such a decision may adversely impact carrier deployment schedules through the creation of cost reimbursement questions, unnecessary complexities between various markets operated by individual carriers and complications in migration to Phase II service.

3. Technology choice should remain with the wireless carrier. Carriers strongly believe that they should continue to be able to direct the choice of technology for the following reasons:

- Nationwide contracts yield price efficiencies. Wireless carriers are not local carriers. Carriers derive huge economies of scale with nationwide solutions. This benefits consumers and brings the industry closer to the FCC desired goal of ubiquitous service.
- PSAPs and states are new to wireless. The benefits of employing carrier employee expertise is immeasurable both in time and money.
- Competition in the wireless industry means that carriers provide service in many ways through different technologies and networks. It makes sense that carrier hardware interfaces may make one technology preferable to another.
- Since the release of the FCC's Order, the carriers have expended considerable resources in anticipation of the deployment of Phase I. That expenditure continues but would pale in comparison to the resources carriers would have to expend on multiple technical deployments. Again, wireless is nationwide. A single carrier could be forced to implement numerous solutions on a local and state basis making E911 extremely expensive to the public. Just the time needed by any single carrier to build, buy, learn and implement various solutions would be impossible in the near term.
- Network quality control and security issues are a major concern to carriers.
- "PSAP funds" are obtained under surcharge based recovery mechanisms from wireless customers. The focus, therefore, should be on delivering the best solution for customers, not the PSAPs.

C. Other Issues.

1. The LEC 911 Network. Even prior to the initial FCC order, numerous parties considered how quickly to develop systems to deliver ANI and pANI to the PSAP. Solutions should be reliable and affordable, should minimize post dial delay, and should be capable of an upgrade to Phase II. With the LECs'

enormous imbedded base of switches, these objectives were particularly challenging for the LECs.

LECs operate 911 as a line of business. In order to compete for the delivery of wireless Phase 1, changes were necessary in their methods of call completion. The trunks between the mobile switches and the selective routing tandems could not handle the 20 digits necessary for delivering ANI and pANI. The trunks between the selective routing tandems and the PSAPs, for the most part, also could not handle the 20 digits.
Much of the CPE in the PSAPs could not accept a 20 digit trunk termination from the selective routing tandem. Changes would also be required in the CPE software to display the additional information. If any of the Phase 1 data were delivered out of band, then new data circuits and protocols had to be established.

The LEC development effort was further complicated by several non business issues: Numerous providers were competing for the Phase 1 business; the LEC solution was not the only game in town. The LEC's decision regarding when, or if, to offer a Phase 1 solution became dependent on normal business factors such as risk, profit margin, rate of return, etc. The delay in ordering necessary switch upgrades provided an opportunity for 'black box' vendors to win part of the market. At the same time, some PSAPs strongly preferred a LEC solution and were willing to delay Phase 1 requests until the LEC solution was ready.

The LECs still had to decide which solution(s) to offer - CAS, NCAS, or hybrid. The cost, ability to upgrade, reliability, speed, and impact to the PSAP varied greatly among the solutions, as would the time required for the switch manufacturers to develop the service. Further, building the wrong solution might mean that no one would buy it.

Tariffing the product was a hurdle which would greatly impact LEC profitability. Assumptions regarding the take rate drove the offering price, which in turn drove the take rate. Approval of the tariff meant further delays.

The LEC had to decide how tightly the product would be bundled. If offered only as an 'end to end' solution, certain third party solutions are effectively locked out of the market. If unbundled and offered as individual network elements, competitors might be able to take away sales and leave the LEC with stranded investment.

It was unclear in some states as to who the customer would be. Some LECs believed that their customer for Phase 1 was the PSAP or a state oversight agency. In some states, a great deal of effort has been expended by the LEC (and some third party vendors) in marketing its product to government agencies. The CMRS providers have worked just as hard to ensure that the choice of Phase 1 provider remain with the CMRS provider.

Cost recovery was not in place in most states until long after the switch manufacturer order intervals for an April 1, 1998 delivery had passed. This increased the risk level to the LECs, which had to order and begin installing system enhancements without the assurance that a paying customer would emerge. (Note, however, that this situation is little different than that faced by third party solution providers.)

2. LEC network readiness. The FCC mandated that wireless carriers be prepared to deliver Phase I services to any requesting PSAP by April 1, 1998. There is no corresponding FCC obligation, however, on LECs to be prepared to pass this information to PSAPs. Instead, the FCC required wireless carriers to "explore all available options, including non-LEC based solutions, before filing a waiver application."[3]

As of April 1, 1998, no LEC had performed the upgrades to their network necessary to pass twenty digits of information through the existing 911 network. Accordingly, in order to speed implementation of enhanced 911, and to comply with the requirements imposed by the FCC, the majority of carriers signed contracts with "third-party vendors" such as SCC Communications and XYPOINT.

Over a year and a half after the deadline passed, the LECs continue to be slow in their implementation of routing solutions. Southwestern Bell did not file its tariff for 911 wireless services in Texas until May of 1999 and has not implemented any solution in its other states.

3. LEC willingness to allow ALI database access. Because of the general state of LEC readiness, wireless carriers turned to third party solutions for the routing of enhanced 911 information. Unfortunately, these "third party" solutions were not as simple as initially portrayed by the vendors.

Although LECs and PSAPs were not required to engage in the large network reconfigurations required to pass twenty digits, LECs were required to modify their ALI database systems to allow the third party vendors to dynamically update them for wireless calls. Many LECs either refused such access initially or claimed they were not technically feasible. Although many LECs modified their initial position, many are still delaying the modifications necessary to perform such dynamic routing. Most notably, Bell Atlantic indicated it will not modify its network to permit this form of routing until next year.

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[3] Memorandum Opinion and Order, In the Matter of Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket 94-102, released December 23, 1997, (hereinafter "Reconsideration Order") ¶107.

4. **LEC Pricing.** Having finally begun implementation of 911 solutions, the monopoly LECs are now attempting to use their choke hold on the 911 network to impose outlandish fees on wireless carriers and PSAPs.

While Bell Atlantic indicated it will not perform the upgrades necessary to allow third party solutions until next year, it is offering a network solution. It plans to recover the cost of two new selective routers at each of its 911 tandems at a cost of $200,000.00 each. [need to confirm].

Although trunking to a selective router would ordinarily be less than $250 dollars per month, Ameritech indicated that connection to its 911 selective routers will now cost wireless carriers $13,889 per selective routing switch on a non-recurring basis and $300 per month recurring. Ameritech's cost per router in Wisconsin is $25,800.

Similar fees are being imposed by Bell South and Southwestern Bell.

5. **Concerns regarding the value of Phase I: Texas, California, Missouri.** The value of Phase I is being questioned by various entities and the customer. As set out in more detail in the state profiles, CA has seriously questioned whether Phase I is worth the investment. Texas has not codified its rationale for delaying Phase I but it has consistently publicly questioned its efficacy.

In Missouri the voters rejected a $.50 E911surcharge despite the support of public safety and the wireless industry.

6. **PSAP preparation needs.** The timelines contained in the FCC Order are simply not achievable given the political and economic realities faced by PSAPs. In reality, a PSAP must address all of the following issues before Phase 1 implementation can occur:

a. PSAP Readiness.

i. Situational Awareness - Most PSAP managers are responsible for day to day operational issues and are simply not able to keep up with the multitude of changes in the 911 field. Despite efforts by NENA and APCO, the majority of PSAP managers are not able to focus sufficient time and effort on wireless E911. It's a classic case of not having the time to capitalize on an opportunity which could save time.

ii. Equipment Upgrades - The age and capabilities of PSAP equipment varies widely, even at the county level. Funding and political support are simply more favorable in some PSAPs than in others. Even in favorable situations, few PSAPs can afford to upgrade their equipment every 3 or 4 years. Given that the

wireless E911 order was issued in 1996 it is not surprising that a good percentage of PSAP equipment is unable to use the wireless data.

iii. **Addressing and Mapping Support** - Wireless E911 requires consistent addressing and this often requires a level of local mapping sophistication which has not yet been achieved. Phase 1 implementation requires valid addresses for wireless antenna sites because the ALI database must include records containing site location data. Addressing efforts in even an average size county can take several years. If mapping is also required the completion time is even longer.

iv. **Manpower** - Management of the required upgrades takes considerable effort and a PSAP rarely has the internal manpower resources to handle the extra work. Gaining approval to engage a consultant and actually getting the consultant hired and working can take most of a year. At that point, the consultant can actually start to determine what the PSAP needs to implement Phase 1.

b. 911 Infrastructure Readiness

i. **Trunking & Signaling** - Although some solutions allow the PSAP to continue using existing CAMA trunks, the impact on wireless call volumes on the PSAP system must be considered. Congestion control, statistical data gathering options, and PSAP policy must all be evaluated before trunking decisions can be made. Collection of information on available trunking and signaling options and coordination of decisions involves considerable time and effort to achieve successfully.

ii. **Selective Routers** - Some selective router changes may be required regardless of which wireless E911 option is selected. This requires coordination with the LEC, which often desires to make upgrades which are consistent throughout their service region. Coordination, decision making, and implementation can take over a year.

iii. **ALI Database Upgrades** - ALI databases must be able to handle the wireless site location records. In some cases the records reside in the LEC database but in others the records reside in an external database which must be queried each time a wireless 911 call is received. Software upgrades must be developed and deployed to enable this functionality.

c. Funding

i. **PSAP Readiness** - PSAPs need money to prepare for Phase 1 wireless 911. Additional delay is encountered when cost recovery legislation must be enacted before the PSAP can start to upgrade. According to PSAPs funding for upgrades is necessary in cost recovery legislation. The FCC Order, however, does not contemplate cost recovery to include such funding.

ii. **911 Infrastructure** - In many cases upgrading the 911 infrastructure is an enormous undertaking. The engineering, development and deployment efforts required to upgrade the infrastructure can take well over a year.

iii. **Cost Recovery** - Lacking a revenue source to fund wireless 911 service and a mechanism through which to disburse these funds, the PSAP cannot request this service. Because state legislative action is normally required it can take several years to develop and implement a cost recovery mechanism.

iv. **Summary** - PSAPs must successfully complete a number of difficult and time consuming actions before Phase 1 wireless E911 can become reality in their coverage areas. Technically speaking, many of these steps can be taken simultaneously. Unfortunately there are some steps which, in the real world, are done in a linear order. The net result is PSAPs have simply not had enough time to achieve Phase 1 implementation.

7. **Contract Issues.** Some government entities have proposed Phase I E911 service agreements that resemble government procurement contracts. These agreements include various legal requirements that are neither appropriate nor relevant to the provision of Phase I E911 Service. For example, draft language from the State of Minnesota requires wireless carriers to implement affirmative action programs to recruit, train, and employ minorities, women and disabled individuals. Such programs must be submitted to the State's commissioner of human rights for approval.

Similarly, the City of Chicago requires that carriers and their subcontractors adhere to an affirmative action policy with strict numerical quotas. This provision would require each carrier to spend 4.5% of its cost reimbursement on women-owned subcontractors and 16.9% on minority-owned subcontractors. Another provision in the City of Chicago's draft would entitle the City to offset its cost recovery payment by any amounts owed by the carrier in the form of parking fines. Such burdens are not required by the FCC's E911 mandate and are not relevant to the provision of Phase I E911 service. Further, some of these requirements may not even be feasible and may add considerably to carriers' costs.

III. FCC CAN EXPEDITE 911 DEPLOYMENT BY:

A. Staying the Course:

1. The FCC needs to recognize the financial, technological and political investment made by carriers in deploying Phase I under the current FCC Order. There is little to gain and, in fact, the industry will lose momentum if the FCC changes the cost recovery rules at this time. While the industry welcomes the

strengthening of the FCC Order as set out in the various filings by carriers in their Petitions for Reconsideration under the original order, the FCC has few facts upon which to base any major changes. There has been little, if any, data collected by the FCC on the implementation of E911 - landline or wireless.
Because the carriers have invested so much time and money into the deployment of Phase I and because the carriers are intimately familiar with the obstacles and the time needed for deployment, the consensus among carriers is that Phase I implementation is moving at the fastest rate possible.

This is not a matter of delay, but rather a case of unrealistic expectations. Moreover, we are not sure what the FCC has determined to be a measure of success. Given the lack of information on the number of PSAPs, the lack of control over LEC pricing and implementation, legislative delay, etc., the FCC's current milestones are simply unrealistic. That is not to say that the roll out of Phase I is a failure that needs to be cured with drastic changes to Phase II. The FCC needs to look closely at the current system and acknowledge that one of the missing elements is the time necessary to accomplish the goals set out in its Order. Changing cost recovery for Phase II, overturning carriers' right to choose technology, or relaxing PSAP requirements at this point in time would set back deployment significantly.

2. Self-recovery will create competitive parity issues, discriminate against new entrants and rural carriers, moot the financial, technological and political investments made to date and will not expedite Phase II deployment. Self recovery will allow large, urban and incumbent carriers to roll out services at significantly lower prices than small, rural and new entrant carriers. Large carriers simply have more customers over whom to spread the cost, urban densities result in vast economies of scale, and incumbents have an established customer base and a ready network from which to deploy.

Self recovery would result in rural have-nots, despite the fact that rural customers will pay the same surcharge as their urban counterpart. New entrants would have to roll out E911 in order to compete with incumbents. Rural and incumbent carriers would be at a huge competitive disadvantage in those areas where they compete with larger incumbent carriers. The most significant flaw in self recovery is that E911 will reach fewer people and deployment will take longer.

B. The Wireless Industry Will Continue To Take Proactive Steps to Expedite E911 Deployment

As clearly demonstrated in Section I and II, the wireless industry is in full compliance with the Commission's E911 Order. In an industry-wide effort to assure the successful deployment of wireless E911, wireless carriers have proactively gone above and beyond their obligations under the FCC's Order by

actively advocating legislation, participating in E911 trials and demonstrations, and by concerted outreach to the PSAP community.

Continuing with that record of cooperative, proactive effort, the wireless industry is willing to take additional steps to expedite deployment under the current regulatory framework. Those steps include:

1. Carriers pledge to continue their active support for appropriate statewide legislative funding initiatives (legislatively-mandated customer surcharges), working cooperatively with the PSAP community on a state-by-state basis to make cost recovery a reality nationwide.

2. Carriers, with the leadership of CTIA, will focus resources on a proactive education/outreach campaign with the PSAP community.

3. Carriers will continue their commitment of personnel and resources to ongoing development of E911 technical standards (through participation in TR.45 and other technical standards development bodies).

4. Carriers will continue their willingness to provide expertise and serve on state 911 advisory boards and task forces.

5. Carriers are willing to develop a national contract task force, focused on the development of statewide model contracts available for use by all carriers in Phase I service deployment. If interest exists at the PSAP level, the task force would also explore the possibility of development of a national model contract.

EXHIBIT B

Wireless E9-1-1 Survey
Last updated July 14, 1999

State	Wireless E-911 Legislation & Date Eff.	Eff. Date of Fee Collec-tion	Fee & % That Goes To Wireless	Cost Recovery Rules[i] Est. & Date Eff.	Wireless Carriers Phase I Compliant[ii]?	Number of PSAPs Making Phase I Requests Meeting FCC Precon-ditions[iii]?	Number of PSAPs in Process of Being Implemented	Comments
AK	No	No	No	No	Yes	0	0	
AL	Yes 5/1/98	5/1/98	$.70 44%	Yes 4/22/99	Yes	30	30	
AR	Yes 7/1/97	8/1/97	$.50/58% in a pool shared with PSAPs	Yes	Yes	0 – See comments	0	PSAPs have delayed implementation until Southwestern Bell has installed its routing solution.
AZ	Yes 4/97	7/1/97	$.10/ % N.A.	No	Yes	4	4	Carriers working with Pima County (4 PSAPs); facilities installed and trunks tested but County has not signed contract. Legislation does not specify how funds are allocated.
CA	No.	Fees have been collecte d from wireless for 10+ years. Wireles s and wireline fees comingl ed	Fee = .72% of intrastate charges. No designated percentage to wireless.	No	Yes	0	0	Recent report questions value of Phase I.

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CO	Yes 4-30-97	7-97	Up to $.70; currently counties collect surcharges ranging from $.25-.70 (0% specifically reserved for wireless; carriers seek recovery from BESP)	Role of BESP/ LEC in cost recovery process remains under discussion	Yes	22	22	BESP is defined as Basic Emergency Service Provider.